



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,926	07/21/2003	Rudolf Maarten Bolle	YOR920000383US2	5377
7590 08/09/2004 Ryan, Mason & Lewis, LLP Suite 205 1300 Post Road Fairfield, CT 06824			EXAMINER WORJLOH, JALATEE	
			ART UNIT 3621	PAPER NUMBER

DATE MAILED: 08/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/623,926	BOLLE ET AL.	
	Examiner	Art Unit	
	Jalatee Worjloh	3621	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>01/12/2004</u> .                                                          | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 3621

### DETAILED ACTION

1. Claims 1-18 have been examined.

#### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 9, 15 and 18 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed to a process that does nothing more than manipulate an abstract idea. There is no practical application in the technological arts. All that is necessary to make a sequence of operational steps a statutory process within 35 U.S.C. 101 is that it be in the technological arts so as to be in consonance with the Constitutional purpose to promote the progress of “useful arts.” *In re Musgrave*, 431 F.2d 882, 167 USPQ 280 (CCPA 1970). Also, a claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result: i.e. the method recites a step or act of producing something that is concrete, tangible and useful. *See AT&T v. Excel Communications Inc.*, 172 F.3d at 1358, 50 USPQ2d at 1452. .

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-8, 15 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by US Publication No. 2003/0225693 to Ballard et al.

Ballard et al. disclose distorting a digital representation of one or more biometrics of a user to create a distorted biometric using one or more transformations, at least one of the transformations comprising one or more non-invertible functions (see paragraphs [0137] and [0138]) and comparing, in response to a transaction, the distorted biometric with one or more stored distorted biometrics, so that the distorted biometric represents a user without revealing the digital representation of the one or more biometrics (see paragraph [0017]).

Referring to claims 2-6, Ballard et al. disclose the method, where the biometric is a physical characteristic, a behavioral characteristic; where the biometric includes any one or more of the following: one or more fingerprints, one or more minutiae, a voice pattern, a facial image, an iris, a hand signature, an auditory signature, a gesture and a gait; where the transaction is for one or more of the following: use of a financial instrument, providing a service, executing a contract, a sale, a bid, a submitted account number, an

Art Unit: 3621

authorization, an identification, a reservation request, a purchase, a quote, an access to a physical structure, an access to a financial account, an authority to manipulate a financial account, an access to a database, an access to information, a request for a privilege, a request for a network service, an offer for a network service, an auction, and an enrollment; where the distorted biometric is used to authenticate the user (see paragraph [0016]).

Referring to claim 7, Ballard et al. disclose the user is any one or more of the following: a customer, a customer submitting an order on a network, a client, an employee, a user of a service, and a purchaser of a product (see paragraph [0017]).

Referring to claim 8, Ballard et al. disclose the method being performed by any one or more of the following: the user, a company, a service company, a company selling products, a bank, a computer, and a credit card company (see paragraph [0018]).

Referring to claim 15, Ballard et al. disclose receiving a user identifier (i.e. “transaction data”), a distorted biometric and a transaction request, wherein said distorted biometric was creating using one or more transformation of a digital representation of one or more biometrics of a user, at least one of the transformations comprising one or more non-invertible functions (see paragraphs [0079], [0081], lines 1-6, [0137] and [0138]), checking the user identifier with information about one or more accounts of the user (see paragraph [0076], lines 1-4), verifying the identify of the user by comparing the received with a stored user identifier (see paragraph [0136], lines 5-7) and comparing the received distorted biometric with a stored distorted biometric associated with the stored user identifier (see paragraph [0126], lines 15-18) and granting authorization for the transaction request if the information about the account is in good standing and the

Art Unit: 3621

distorted biometric is associated with the user, wherein said distorted biometric was created using the one or more transformations (see paragraph [0025]).

Referring to claim 18, Ballard et al. disclose sending a transaction request, a user identifier (i.e. "transactional data") and a distorted biometric determined using one or more transformations that transform a digital representation of one or more biometrics of a user to the distorted biometric, at least one of the transformation comprising at least one non-invertible functions (see paragraphs [0137] and [0138]) and receiving an authorization for a transaction defined by the transaction request (see paragraph [0025]).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-11,14,16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard et al. in view of US Patent No. 6092192 to Kanevsky et al.

Ballard et al. disclose receiving one or more distorted biometrics associated with a user identifier (i.e. personal identifier/transactional data) wherein said one or more distorted biometrics were created using one or more transformations of a digital representation of one or more biometrics of a user, at least one of the transformations comprising one or more non-invertible functions (see paragraph [0079], [0137] and [0138]), storing a plurality of records in one or more databases, each record having one or more distorted biometrics and a user identifier (see paragraph [0081], lines 1-6), receiving one or more requests from a requester (i.e. merchants/financial institutions), the

Art Unit: 3621

one or more requests containing one or more target distorted biometrics associated with a target identifier (see paragraph [0018]). Ballard et al. do not expressly disclose providing the requester with an indication that the target distorted biometric and target identifier matched one or more of the respective one or more distorted biometrics and associated user identifiers. Kanevsky et al. disclose providing the requester with an indication that the target distorted biometric and target identifier matched one or more of the respective one or more distorted biometrics and associated user identifiers (see col. 9, lines 1-34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Ballard et al. to include the step of providing the requester with an indication that the target distorted biometric and target identifier matched one or more of the respective one or more distorted biometrics and associated user identifiers. One of ordinary skill in the art would have been motivated to do this because it “facilitate a virtually fraud proof system of conducting transactions” by ensuring that unauthorized individuals are prevented from accessing the system (see paragraph [0027]).

Referring to claim 10, Ballard et al. disclose the step of storing a distortion transform used to create the distorted biometric from the digital representation of the one or more biometrics of the user (see paragraph [0140]).

Referring to claim 11, Ballard et al. disclose the distorted biometric can not be inverted to a digital representation of the biometric from which he distorted biometric was created (see claim 9 above).



Art Unit: 3621

Referring to claim 14, Ballard et al. disclose the requester is nay one or more of the following: a financial company, a bank, a brokerage, a credit card company, and a merchant (see paragraph [0018]).

Referring to claim 16, Ballard et al. disclose verifying the user identity (see claim 15 above). Ballard et al. do not expressly disclose the user is verified by receiving an acknowledgment form a remote computer that the user identifier is associated with the digital representation of the distorted biometric. Kanevsky et al. disclose the user is verified by receiving an acknowledgment form a remote computer that the user identifier is associated with the digital representation of the distorted biometric (see col. 9, lines 1-34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Ballard et al. to include the step of receiving an acknowledgement from a remote computer that the user identifier is associated with the digital representation of the distorted biometric. One of ordinary skill in the art would have been motivated to do this because it “facilitate a virtually fraud proof system of conducting transactions” by ensuring that unauthorized individuals are prevented from accessing the system (see paragraph [0027]).

Referring to claim 17, Ballard et al. disclose sending a user identifier (i.e. “transactional data” and an associated digital representation of a user biometric to a remote computer that distorts the digital representation of the user biometric to a distorted biometric suing one or more transformations, at least one of the transformation comparing one or more non-invertible functions, sending the user identifier and transaction request to a financial company (see paragraphs [0081], lines 1-6, [0137], [0138] and [0018]), determining that the user identifier is associated with the distorted



Art Unit: 3621

biometric (see paragraph [0126], lines 15-18), and receiving an authorization for the transaction request from the financial company if the user identifier is associated with a account in good standing (see paragraphs [0025], [0018]). Ballard et al. do not expressly disclose sending an acknowledgment to the financial company. Kanevsky et al. disclose sending the acknowledgement (see col. 9, lines 1-34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Ballard et al. to include the step of sending an acknowledgement. One of ordinary skill in the art would have been motivated to do this because it “facilitate a virtually fraud proof system of conducting transactions” by ensuring that unauthorized individuals are prevented from accessing the system (see paragraph [0027]).

7. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ballard et al. and Kanevsky et al. as applied to claim 9 above, and further in view of US Patent No 6657538 to Ritter.

Ballard et al. disclose distorted biometric (see claim 9 above). Ballard et al. do not expressly disclose the distorted biometric is canceled by allowing a user to replace the distorted biometric with a second distorted biometric. Ritter discloses disclose the distorted biometric is canceled by allowing a user to replace the distorted biometric with a second distorted biometric (see col. 4, lines 9-15). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method

Art Unit: 3621

disclose by Ballard et al. to include disclose the distorted biometric is canceled by allowing a user to replace the distorted biometric with a second distorted biometric. One of ordinary skill in the art would have been motivated to do this because it ensures that changes are updated, thus providing a secure and accurate record of authentication data.

As for claim 13, Ballard et al. disclose creating distorted biometrics (see claim 9 above). Ballard et al. do not expressly disclose the second distorted biometric is created by a second distortion transform that is different than a first distortion transform used to create the distorted biometric; however, this is an obvious step. Since the biometric is being updated/replaced it must use a different distortion transform. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to modify the method disclose by Ballard et al. to include the second distorted biometric is created by a second distortion transform that is different than a first distortion transform used to create the distorted biometric; however, this is an obvious step. One of ordinary skill in the art would have been motivated to do this because it ensures that changes are updated, thus provides a secure and accurate record of authentication data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jalatee Worjloh whose telephone number is 703-305-0057. The examiner can normally be reached on Mondays-Thursdays 8:30 - 7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 703-305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306, 703-746-9443 for Non-Official/Draft.

Art Unit: 3621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

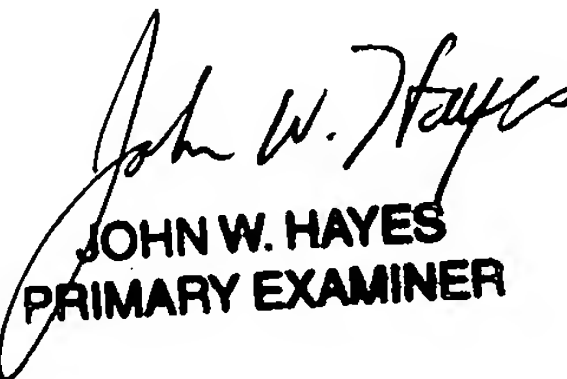
Any response to this action should be mailed to:

***Commissioner of Patents and Trademarks***  
**PO Box 1450**  
***Alexandria, VA 22313-1450***

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, V.A., Seventh floor receptionist.

\*\*\*

August 4, 2004

  
**JOHN W. HAYES**  
**PRIMARY EXAMINER**